

AMENDMENT UNDER 37 C.F.R. § 1.116
U. S. Application No. 09/835,319

REMARKS

Claims 1-6, 8-16, and 18 are pending in the application. Claims 3-5 and 11-15 have been withdrawn from consideration.

In response to the Amendment filed October 17, 2002, all of the previous rejections were removed. Currently, claims 1, 2, 6, 8-10, 16 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over FIG. 1 of Applicants' admitted prior art (AAPA) in view of previously-cited Paoli (US 5,699,375) and newly-cited Jiang et al. (US 6,021,146). Applicants respond to the current claim rejection with the following comments.

The Examiner admits that FIG. 1 of AAPA does not disclose a multi-wavelength surface-emitting laser. See page 3 of Office Action. FIG. 1 of the AAPA shows a conventional surface-emitting laser including a substrate 10, a lower reflector 12, an active layer 14 and an upper reflector 16, which are deposited in order on the substrate 10. Also disclosed in FIG. 1 is a lower electrode 21 on the bottom surface of the substrate 10 and an upper electrode 23 on the upper surface of the upper reflector 16.

Paoli relates to a multiple wavelength surface emitting laser, which has first and second broad bandwith distributed Bragg reflectors (DBR), which reflect light at multiple wavelengths. An example of Paoli's device is shown in FIG. 1. The device includes a lower electrode 194, a substrate 102, a DBR 104, a spacer 106, a first active layer 108, a spacer 110, a second active layer 112, a selectively intermixed region 113, a spacer 114, an etch stop layer 116, a spacer 118, a protective contact layer 120, a first contact 162, a second contact 160, a DBR 122, implantation regions 180 and 190, and a region 195 for electrically isolating the first and second lasers. The DBR 104 is disclosed as having alternating layers of AlGaAs and AlAs. See col. 4, lines 31-32.

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The Jiang et al. reference is applied by the Examiner to show that it is known in the laser art to obtain different refractive indexes by altering the aluminum content of a layer.

Applicants submit that, even if AAPA and Paoli were combined, the combination of references would fail to teach or suggest all of the limitations of independent claims 1, 6, and 16.

Specifically, Applicants submit that the combination of AAPA and Paoli does not disclose the first and second lower reflectors of claims 1 and 6 or the first and second laser reflecting means of claim 16. FIG. 1 of the AAPA shows a conventional surface emitting laser, which has one substrate 10 and one lower reflector 12. Likewise, Paoli, as shown in FIG. 1, discloses a single distributed Bragg reflector 104 for both laser cavities 130 and 140. Neither the AAPA nor Paoli disclose multiple lower reflectors. Therefore, a combination of these two references would result in a single lower reflector 12/104.

By contrast, claims 1 and 6 of the present invention require a first lower reflector and a second lower reflector. Likewise, claim 16 of the present invention requires a first laser reflecting means disposed on the substrate and a second laser reflecting means disposed on the substrate. Although, Paoli discloses a region 195 which can be an etched groove, the etched groove as shown in FIG. 1 stops in the spacer 106. See col. 5, lines 23-25. Thus, the only apparent teaching of isolating first laser cavity 130 from second laser cavity 140 fails to even suggest the reflector 104 could be divided into separate reflectors for each of the laser cavities.

Therefore, Applicants submit that claims 1, 6 and 16, as well as their respective dependent claims 2, 8-10, and 18 are allowable over the prior art.

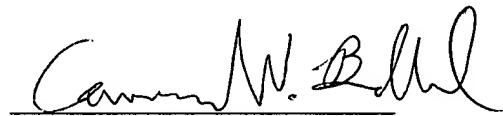
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

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Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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